

**New York State Electric & Gas Corporation**  
**Columbia County Transmission Project**

**Exhibit 9**

**Cost of Proposed Facilities**

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## **EXHIBIT 9: COST OF PROPOSED FACILITIES**

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### **9.1 Capital Costs**

No escalation rates are included in the cost estimates. All costs are in 2012 dollars.

#### **9.1.1 General Capital Costs**

The general capital cost estimate includes items that apply to all of the segments that comprise the upgrade of the Columbia Country Transmission Line Project, including the following:

- Land Acquisition, Easement and Rights-of-Way Agreements , and Surveys
- Licensing and Permitting Including Fees for Legal
- Vegetation Management
- Access Roads, Including Matting
- Environmental Controls and Restoration
- NYSEG Management and Support
- Owners Engineering

#### **9.1.2 Transmission Capital Costs**

The capital cost estimate for the transmission facilities includes the construction required to break the existing 115-kV transmission line operated by National Grid and connect it to the Proposed Ghent Switching Station. The capital cost estimate includes the construction of the following transmission facilities:

- New 2.5-mile 115-kV Extension of the National Grid Trunk #15
- New 8.6-mile 115-kV Line Circuit #726 from Proposed Ghent Switching Station to Klinekill Substation

The capital cost estimate for the overhead transmission lines includes materials and supplies, equipment purchases, engineering, contractor construction labor for installation of foundations,

structures, hardware, conductor, and optical ground wire, contingencies, and other indirect charges. A more detailed description of the improvements is provided in Exhibits E-1 and E-3.

### **9.1.3 Substation Capital Costs**

The capital cost estimate for the substations includes materials and supplies, equipment purchases, engineering, utility labor for on-site supervision, contractor construction labor for civil work and installation of equipment, structures, protection and communication systems, testing and commissioning, contingencies, and other indirect charges. A more detailed description of the improvements at each substation is provided in Exhibit E-2.

The capital cost estimate for Proposed Ghent Switching Station includes the construction of a new 115-kV switching station whose fenced in area is approximately 2 acres (350 feet by 250 feet). The switching station will consist of a new 115-kV breaker and a half arrangement, three (3) 115-kV breakers, associated switches, instrument transformers, surge arresters, station service transformers, structures, bus work, foundations, grounding, conduit, control cable, and protection and communication systems.

The capital cost estimate for Klinekill Substation includes the addition of three (3) – 115-kV breakers and associated switches, instrument transformers, surge arresters, structures, bus work, foundations, grounding, conduit, control cable, and protection and communication systems.

Site development costs for the Proposed Ghent Switching Station include clearing, topsoil stripping and site restoration, erosion and sediment control, balanced cut and fill, substation base, fence, access road, and contractor's overheads and profit. No rock excavation or blasting is included.

## **9.2 Sources of Information**

The capital cost estimates presented in Table 9-1 are based on Burns & McDonnell's and NYSEG's experience with similar transmission and substation projects. Cost estimates of major equipment were obtained from vendors and manufacturers. Costs of labor and contact work are based on information from NYSEG and contractors experienced in this type of work. Actual costs will be predicated on the final design of the facilities and prices in effect at the time of construction. Preliminary bids for construction have not been sought.

**Table 9-1 Cost of Proposed Facilities**

Item	Description	General	Extension of Trunk #15	Circuit #726	Ghent Switching Station	Klinekill Substation Upgrade	Total
1	Land Acquisition, Easement and Right-of-Way Agreements and Surveys	\$ -	\$65,900	\$523,300	\$29,300	\$ -	\$618,500
2	Licensing & Permitting Including Fees for Legal	\$457,070	\$ -	\$ -	\$ -	\$ -	\$457,070
3	Materials, Equipment	\$ -	\$257,000	\$994,000	\$1,797,000	\$616,000	\$3,664,000
4	Sales Tax (8%)	\$ -	\$20,560	\$79,520	\$143,760	\$49,280	\$293,120
5	Utility Labor	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Contractor Labor	\$ -	\$840,000	\$2,872,000	\$2,201,250	\$752,564	\$6,665,814
7	Vegetation Management	\$ -	\$73,000	\$563,000	\$ -	\$ -	\$636,000
8	Access Roads Including Matting	\$ -	\$229,000	\$1,261,000	\$ -	\$ -	\$1,490,000
9	Environmental Control and Restoration	\$53,280	\$371,000	\$1,853,000	\$ -	\$ -	\$2,277,280
10	Engineering	\$ -	\$50,750	\$160,750	\$500,750	\$190,750	\$903,000
11	NYSEG Management & Support (Note 1)	\$2,430,000	\$ -	\$ -	\$ -	\$ -	\$2,430,000
12	Program Manager/Owners Engineer (Note 2)	\$2,144,540	\$ -	\$ -	\$ -	\$ -	\$2,144,540
13	Administrative Overhead (Note 3)	\$330,518	\$123,969	\$539,927	\$303,684	\$104,559	\$1,402,656
14	Contingencies (Note 4)	\$508,489	\$190,721	\$830,657	\$467,206	\$160,859	\$2,157,932
15	AFUDC (Note 5)	\$731,080	\$274,209	\$1,194,277	\$746,362	\$256,973	\$3,202,901
	<b>Total</b>	<b>\$6,654,977</b>	<b>\$2,496,109</b>	<b>\$10,871,431</b>	<b>\$6,189,311</b>	<b>\$2,130,985</b>	<b>\$28,342,814</b>

Notes: \_\_\_\_\_

- 1 6 FTE over 3 years @ \$135,000 full loaded costs
- 2 8% of Total Project Cost
- 3 Administrative Overhead is 6.5% of Project Cost
- 4 Contingencies are 10% of Project Cost
- 5 Allowance for Funds Used During Construction (AFUDC) is 13.5% of Project Cost: 13.5% and Overhead for General and T-Lines and is 15% for Substation and Switching Station.

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